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| | |
|---|---|
| $\ddot{u}$ | Acceleration with respect to time |
| $u$ | Displacement, initial displacement $u(0)$ |
| $m$ | Mass of the structure |
| $k$ | Stiffness of the structure |
| $p(t)$ | External force varies with time |
| $f_D$ | External force of the damper equal and opposite with the internal force in the damper |
| $c$ | Viscous damping coefficient |
| $\dot{u}$ | Velocity varies with time |
| $f_S$ | External force equal and opposite to the internal force resisting the displacement, $u$ |
| $k$ | Lateral stiffness of the system |
| $u$ | Displacement varies with time |
| $u_g$ | Displacement of the ground |
| $u^t(t)$ | The total (or absolute) displacement of the mass |
| $u(t)$ | The relative displacement between the mass and ground |
| $\omega_n$ | Natural circular frequency |
| $T_n$ | Natural period of vibration |
| $f_n$ | Natural cyclic frequency of vibration |
| $f_{rf}$ | Flexural Strength of concrete |
| $f_{rs}$ | Shear Strength of concrete |
| E | Modulus of Elasticity |
| $f_{cu}$ | Concrete Compression Strength |